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Communications.

PASSIVE CAPILLARY CONGESTION OF THE BRAIN.—A REVIEW OF A CASE.

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From a perusal of Dr. J. H. Thompson's article in the Medical and Surgical Reporter of February 5th, I am satisfied that the questions propounded are asked in good faith; that the author really desires the opinions of the profession upon the points specified. I think his diagnosis incorrect, and that the disease was neither apoplexy nor cerebro-spinal meningitis. It is true that there are many symptoms which are common, and are present in different diseases. When we study a given case we must so discriminate and classify the symptoms as not to be led astray thereby.

Statement of the case as presented by the author:—

"At half-past seven, P. M., the wife found her husband sleeping. Had a very hot skin, and when aroused to consciousness manifested a desire for cold water. Through the night a hot skin, a greediness for cold water, a shivering sensation on any removal of bed clothes or exposure to cold, and somnolency bordering on coma, characterized his condition. The latter feature of the case becoming more marked in the morning I was summoned, and saw him about nine o'clock. Found him almost insensible; breathing heavy, but not stertorous; face and head quite hot, and extremities rather cold; body bathed in a clammy perspiration; pulse feeble and bounding, but about normal as to frequency.

"Judging," says the Dr., "from the symptoms as thus presented on my first arrival to the case, I unhesitatingly decided that the disease was apoplexy."

I should not have thus decided. A hot skin and greediness for cold water are not characteristic of apoplexy. Their presence would have led me to further examination before making such a diagnosis. I have never met them in a case of apoplexy; I do not find them enumerated as among the symptoms that ever attend apoplexy. The very nature of apoplexy forbids that they should ever be present. This will appear when we consider what it is that produces a hot skin and a desire for cold water, with a clammy perspiration and cold extremities.

The above symptoms are very peculiar, and I think it not often they are found together. Let us inquire what could have produced them? A hot skin we often find. What produces it? The time was when it was supposed to be produced by the oxidation or destruction of tissue; but that doctrine is now given up. It is believed to be produced by an increase of blood in the capillaries, so as to obstruct the circulation. The capillary circulation is under the influence of the vaso-motor nerves.

Dr. Flint says in his recent work on physiology, "The increased temperature is due to a local exaggeration of the nutrition process, apparently dependent directly upon the hyperæmia; and it is not probable that there are any nerves to which the name of calorific, as distinguished from vaso-motor,

can be justly applied. There are numerous instances in pathology of local increase of temperature attending increased supply of blood to restricted parts."

Another peculiarity in this case was that the patient had a profuse clammy perspiration. Why was this? Bernard has shown by his very interesting experiments that the sympathetic nerve has great influence over perspiration. Division of the sympathetic produced an increase of the temperature of the part to which the divided nerve was distributed, and also profuse sweating of the same parts; and by galvanizing the divided nerve, the secretion of sweat was arrested. Here, then, we have something tangible. Whatever destroys the power of the sympathetic will increase the temperature and produce copious sweating. In the case before us we have a hot skin and copious perspiration. The fault was evidently in the sympathetic nerve.

Cold extremities and a shivering sensation were produced by the same cause, viz., a want of action in the sympathetic nerve.

The craving of this patient for cold water was from the same cause. Who has not seen patients call for cold water after the system had received an injury producing a shock upon the nervous system. What, then, was the trouble with this patient? I answer there are two things mentioned by the Doctor that throw abundance of light upon this case, as follows:—

"For a year or longer he had been subject to attacks of dizziness, and frequently would become so giddy as to require some object of support to sustain him in an erect posture. These seizures would be attended with headache, and sometimes would be followed with stupor lasting for hours." Again he says, "On the day of the attack, in the morning, he partook of a very hasty breakfast."

The above history gives us the key to the whole case. The breakfast was more than the sympathetic nerve could take care of. The vaso-motor nerves were prostrated, and capillary congestion was the result. The heart made an effort to overcome the obstruction, and there was a full bounding pulse, but not increased in frequency.

The heart and lungs are under the influence of two sets of nerves, the pneumogastric and the sympathetic. Stimulate the sympathetic and you increase their action. In the case before us the sympathetic was prostrated by the breakfast, and the breathing was heavy, the pulse bounding and full. The heart acted vigorously, but not rapidly, to overcome the capillary obstruction to the circulation.

The conclusion that I have come to is that the case was one of *passive capillary congestion of the brain*.

There is no doubt in my mind but that the ill turns he had previous to the attack that proved fatal were of that character. It is true there were some anomalous symptoms present during the last sickness, all of which can be accounted for upon this theory of the case. Those cases called apoplexy that terminate fatally and yet leave no traces of the disease in the brain on post-mortem examination, are probably of this character.

There is a very fine description of this disease in Hammond's *Diseases of the Nervous System;* the differential diagnosis between this and apoplexy and other diseases is very clearly presented also in Jenner's *Practice*. I cannot see how it is possible that a man as capable as Dr. Thompson appears to be could have made such a diagnosis, and certainly not if he had read and studied Hammond's excellent work.

But we will look a little into the pathology of this case.

Passive capillary congestion must always depend upon the want of action in the vaso-motor nerves. Flint informs us in his physiology that "the contraction of the muscular walls of the blood-vessels is tonic, and when their nerves are divided, relaxation takes place and the vessels are dilated by the pressure of blood. By this action the local circulations are regulated in accordance with impressions made on sensory nerves.

"There can be no doubt of the fact that the sympathetic branches contain filaments capable of modifying the caliber of the blood-vessels, and that the cerebro-spinal nerves also contain elements possessing analogous properties. The first important question is whether the vaso-motor filaments be derived from the sympathetic ganglia or from the cerebro-spinal centres."

The experiments of Bernard, M. Schift and Brown-Sequard show that the vaso-motor nerves are derived exclusively from the cerebro-spinal system, and do not all originate in the sympathetic ganglia. The phenomena presented in this case was a reflex phenomena through the sympathetic.

Dr. Bartholow has reported cases of uni-

lateral sweating of the head produced by compression of the sympathetic.

I think that by carefully investigating this case and considering the influence of the vaso-motor nerves and the sympathetic upon the circulation, we shall come to the conclusion stated above.

We will now look at another portion of the history of this case as detailed by the author.

"A third and essential feature of the case that I have not stated I will now mention, that, perhaps, more than any other, makes doubtful the diagnosis as a case of apoplexy. It is to be noted from my first observation, and during the entire progress of the disease, there was a marked tonic action of the muscular system. At no period was there complete relaxation, even after the full bleeding resorted to; though I could, without great effort, extend the limbs, still there was a strong tendency to flexion of them if let alone. It should be remarked in this connection that upon my second visit, and upon return of consciousness, the patient complained of *rheumatism*, more particularly in the arms; but there were discernible no evidences or developments of inflammatory action."

What could have produced this tonic action of the muscles? The answer is at hand. Congestion of the spinal cord. And this was the result of the prostration of the sympathetic and vaso-motor nerves. Similar symptoms are produced by the administration of strychnia. This drug produces its effects upon the spinal cord. Its force is spent there. Hammond says, "Strychnia produces the characteristic phenomena of stiffness in certain muscles, and of augmented reflex excitability."

This effect is, however, entirely different from that which is produced by cerebro-spinal meningitis. So also are the symptoms detailed by Dr. Thompson.

In cerebro-spinal meningitis there is high fever and sleeplessness, acute pains of a burning character extending along the spine, tetanic contraction of the muscles of the back, amounting at times to opisthotonos. This formidable disease always commences with symptoms of congestion of the membranes of the brain and spinal cord. Soon they pass to the state which we call inflammation. Patients sometimes perish during the stage of congestion. If the disease is so located as to affect the punic nerve it is fatal very quick. The peril depends more upon the location of the disease than upon its violence. During the past year I have treated over sixty cases of this disease, three of which proved fatal; two of them died very suddenly in the congestive stage, the third was from a relapse after convalescence. I cannot conceive how Dr. Thompson should ever have suspected that this case was cerebro-spinal meningitis.

The tonic contraction of the muscles above referred to is very common with dyspeptics, especially after a full meal; also with inebriates and in hysteria.

That symptom confirms us in our diagnosis in this case. It is just what we should have expected in such a case, from such causes as appear to have originated and developed this disease.

Who has not witnessed this tonic contraction of the flexors in children laboring under pertussis complicated with lobular pneumonia, and how many practitioners have informed the anxious mother that the disease has gone to the brain when such symptoms make their appearance? All this, of course, is erroneous. But it satisfies the mother and exonerates the doctor. He has done all he could; the disease went to the brain.

Before closing this part of our subject, and considering Dr. Thompson's treatment of the case, we will refer the reader to an article in the second number of the *Archives of Scientific and Practical Medicine*, which sustains the views we have taken of this case, from the pen of Brown-Sequard.

"The vaso-motor nerves arise from many parts of the nervous centres (including the ganglion of the sympathetic); the medulla oblongata is the principal place of their occupation. The pons-varolii is the chief centre from which they originate, either for the viscera or for the trunk and limbs.

"Symptoms of disease of the brain are of two distinct classes, the direct and the indirect.

"To the group of indirect, production of a morbid activity, delirium, convulsions, and other active disorders of muscular movements."

The contraction of the muscles in this case is thus accounted for, also the inactive state of the bowels. The hot skin and the sweating, and in fact all the symptoms, are thus accounted for without a lesion of the brain. The symptoms were most of them

intermittent. I would recommend readers to study Brown-Sequard's article.

TREATMENT.

We will now consider the treatment of this case, agreeably to the request of the Doctor.

The first visit was at nine o'clock, A. M. At that time "administered a full dose of calomel and rhubarb," next "a copious bleeding." Then "mustard to the spine and a blister to the nape of the neck; mustard to the feet and hot bricks to the extremities. After an interval of an hour another cathartic, same as the first, was given."

We must recollect that at this time the Doctor had decided the case "as unequivocally apoplexy." He then had no doubts about the nature of the case. At about eleven o'clock A. M. he left the patient, and was absent until four o'clock P. M. Five hours. What was the condition of the patient when he returned?

Second visit:—"No operation of the bowels. Was delighted to find my patient not only able to recognize me, but even able to converse intelligently with me to some extent. I administered a drop of croton oil, and ordered a further drop every succeeding hour, till a copious movement of the bowels should be secured."

The third visit was at eight P. M., four hours after the last one. The "patient delirious, restive, and quite uncontrollable; face and head hot, the former preternaturally heightened in color, and changed in aspect; extremities cold and the body suffused in a clammy sweat. The pulse comparatively feeble and irregular; the respiration hurried and labored. There was nausea and vomiting when medicine or drinks were taken. This had occurred upon administration of the second dose of croton oil." Just what he ought to have expected. The wonder is that it had not occurred sooner.

Only think a moment; two full doses of calomel and rhubarb, a copious bleeding, and a blister, and mustard, and hot bricks, and, to cap the climax, two doses of croton oil, to a man whose nervous system was in such a depressed condition that he was "bathed in a clammy perspiration." The system was at this time struggling hard and making a desperate effort to throw off the terrible load that was piled upon it, and hence he vomited.

Now let us see what was done in this dangerous extremity. "Bromide of potassium was administered. A sedative to the brain and nervous system, which was now staggering under a heavy, depressing and exhausting load." He says, "I proceeded to administer an enema." This was composed of warm suds, turpentine and oil, adding half an ounce of the nervine indicated. The nervine was bromide potass., elixir valerianate ammon. About one quart of this mixture was given. According to the account this produced a most wonderful effect. "While it was retained, which was several minutes, a most extraordinary abatement of all the *sensorial* symptoms occurred. He seemed clothed in his right mind. Was rational and intelligent, and the nausea and vomiting ceased."

All this wonderful effect was attributed to the enema. Could there ever be anything more inconsequent? I suppose if he had done anything else he would have attributed the change to that fact. The Doctor entirely overlooks the fact that the patient had vomited, and to a certain extent that had afforded temporary relief to the sympathetic nerve. The enema operated as a local stimulant, the stimulant of distention of the rectum. Soon all his hopes were blasted. The enema passed away, reaction from the vomiting occurred, and there was a return of all the symptoms much exaggerated.

The Doctor says, "Some recuperation still existed. . . . Though the functions of animal and organic life were greatly enfeebled, those of the brain continued active."

Now what was done to meet this emergency? "To allay excitement I gave a dose of anodyne mixture, and employed hypodermic injection of morphine." Indeed, singular treatment to be adopted. This to allay what little excitement there was left. "Animal and organic life greatly enfeebled." The brain still alive, so to put a quietus upon the brain injected morphine. "Waiting a short time and witnessing no effect of the medicine, I administered a full dose of morphine, combined with a solution of say 15 grs of chloral, per mouth. This quieted the patient and produced sleep." I should think it would, and produce a sleep from which he would never awake. But the patient did actually show some restlessness during the night, when another dose of chloral was given, and that finished the case. But as the pulse grew feeble some stimulants

were given semi-occasionally during the night; he died at nine o'clock in the morning, twenty-four hours from the time of the first visit.

Now what could have been the object of giving chloral and morphine to that patient? The action of chloral is almost identical with chloroform. The operation is to produce paralysis of the heart.

In volume eleven of the REPORTER there is an article translated by Dr. J. Commiskey, Philadelphia, in which we find as follows:—

1st. "Hydrate of chloral is a powerful sedative to the sensitive and motor nervous system."

Was there any such agent called for in this case, a case where "the functions of animal and organic life were greatly enfeebled." Wherefore give a powerful sedative to the very source and fountain of these functions, the sensitive and motor nervous system?

2. "Hydrate of chloral produces sleep and anæsthesia by the production of chloroform in the blood through the action of the alkalies of the blood."

Was chloroform called for in this case? I think not.

3d. "The action of chloral is exactly the same as that of chloroform; it follows more slowly and lasts longer."

Hence a most dangerous remedy in such a case. It is not necessary to quote this author further, as the above is sufficient to sustain my opinion of the want of wisdom in its administration in this case.

I will only refer to one more author on this subject. Dr. H. W. Fuller, in the *London Lancet*, for 1871, page 117, has an article on the "Dangerous and Fatal Results from the Use of Hydrate of Chloral."

He shows that chloral is always a dangerous remedy, and often fatal, and condemns its use in cases like the one before us. With this reference I will leave this part of our subject with a short quotation from the article referred to above.

"As the hydrate of chloral is being largely administered as a sedative and hypnotic, and is often recklessly employed in excessive doses, as if it possessed no noxious properties, it may be well to record a few cases in which moderate doses were productive of dangerous and even fatal results."

It is difficult and sometimes impossible to maintain the pulsations of the heart until the effects of the chloral passes off. It, then, was not an article to give when the vital forces were greatly enfeebled.

I do not know Dr. Thompson, nor do I wish to indulge in any undue criticism of his practice, but solely to examine the case from a scientific point of view. I have nothing to do with him personally or his standing in the profession, but with the article from his pen published in your journal.

If what I have written will excite inquiry and lead to investigation and thought, I shall have accomplished my object. Such investigation may lead your readers to think that I am wrong and he was right; at any rate let us examine these subjects thoroughly. Good will assuredly come of it.

HOW TO SECURE UNION BY FIRST INTENTION.

BY J. B. GARRISON, M.D.,
Of De Witt, Arkansas.

It is almost always desirable, and frequently of great importance, to obtain "union by first intention" after certain surgical operations and injuries. I rarely ever fail to secure the desired result, by observing the following rules when they can be made applicable to the nature of the case.

1. Use strong silken sutures previously saturated with carbolized oil; one part of crystallized acid to seven of pure olive oil.

2. Obtain exact apposition of the surfaces to be united.

3. Insert the sutures at a depth corresponding to the depth of the wound if practicable.

4. Tie the sutures so as to bring the surfaces TIGHTLY together throughout their entire extent.

5. Tie as few arteries as possible; use torsion, or compression, which is preferable as to small vessels.

6. Use old linen or cotton cloths, instead of sponges, for cleansing the wound from blood.

7. Use no water on the wound which has not been carbolized by adding at least one drachm of carbolic acid to the pint of water.

8. Close the wound as soon as possible, and do not wait for the entire cessation of capillary hemorrhage.

9. Apply *constantly*, as a dressing, cloths saturated with a solution of carbolic acid, in water the temperature of the body in health.

℞ Acid carbolic., ʒij.
Aquæ pur., Oj. M.

10. Keep the patient and the parts quiescent with such anodynes and mechanical appliances as the nature of the case may require.

11. Surround the patient with as favorable hygienic circumstances as possible.

I have frequently been astonished to find that, in the most unpromising cases, cut and lacerated surfaces will speedily unite by first intention, consequent upon a strict observance of these rules. I do not claim to present anything new on this subject, but to have systematized and simplified the methods of procedure so as to make them readily appreciated by the surgeon.

As a general thing sutures are not drawn *tightly* enough, the surfaces being barely approximated, and room being left for swelling to close the interstices. If the surfaces are held together sufficiently tight no swelling will occur. A very small amount of suppuration will generally form in the track of the suture, but not sufficient to cause a cicatrix. Silken sutures are preferable to silver on account of their greater flexibility, less tendency to cut the tissues, and, when carbolized, are equally non-irritant. Sponges are of themselves irritant, and contain more or less foreign material promotive of suppuration, and I have almost discarded them from my surgical practice. The value of the carbolized water dressing all surgeons of the present day well know.

In a future communication I will give the history of a series of cases illustrative of the success attending the application of the foregoing rules, and the advantages accruing from primary union.

Hospital Reports.

CINCINNATI ACADEMY OF MEDICINE.

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Report from Section on Pathology—Aneurism and Rupture of the Heart.

BY N. P. DANDRIDGE, M.D.

Pathologist to Cincinnati Hospital,

The following report, which I beg leave to offer to the Academy, is based upon a specimen taken from a patient who died at the Cincinnati Hospital, and whose history I take from the clinical records.

Nancy Tait, colored, age 30, married, domestic, entered the service of Dr. Young May 4th, 1872. She states that at the age of twelve a sore appeared on the anterior part of right ankle, which suppurated and discharged a great deal during the spring and summer, but which was much better during the winter. The left leg was not affected until last summer, at which time a sore similar to the first appeared. Two months ago she had an enlarged cervical gland, which suppurated. Mother died of paralysis, father died of an unknown disease, and one brother and sister of consumption; one sister had been affected similarly to herself, but was now well.

Physical condition. Woman of medium size. One enlarged gland and several old cicatrices found in the cervical region. One gland on left side indurated. Feet and legs swollen and inflamed, discharging a sanious pus. There is an eruption extending over most of the body. Appetite good. Bowels constipated. Menses absent for the last two years.

May 8th. Unchanged.

May 30th. Greatly improved and able to sit up.

June 4th. Called this morning at 6 A.M. and found the patient dead, she having expired almost instantly.

Autopsy, ten hours after death. Post mortem rigidity pretty well marked, body well nourished. Numerous scars on body, arms, neck, feet, and legs.

Section. The lower border of the liver was found to be one inch below the ensiform cartilage in the median line. The uncovered pericardium measured seven inches by three and a half, and extended two and a half inches to the right of the median line. Pleuritic adhesions were found everywhere over both lungs. The cavity of the pericardium contained ten ounces of clotted blood. The heart measured six by four and a half inches, and was covered by a thick layer of fat beneath the pericardium; at the apex of the left ventricle a sac-like prominence was seen, one and one fourth inches in diameter, the walls of which were quite thin; at the most prominent part, which is also the thinnest, was a small opening capable of admitting the point of an ordinary probe; this opening communicated through the sac with the cavity of the left ventricle. To the left and forming the external wall of the sac there was an indurated mass about one and a half inches in its antero-posterior diameter, by three-quarters of an inch in its transverse. Upon section this tumor was of a dark purple color, with occasional lines of a lighter hue traversing it, and was sharply defined from the surrounding substance of the heart. The rest of the sac was so thin that when the probe was passed into its interior, it seemed to be covered only by the pericardium and its fat. The opening into the ventricle was small, and was hidden among the trabeculæ. The endocardium showed some atheromatous patches near the base. The microscopic section of the tumor at the apex showed a wavy fibrous struc-

ture. The muscular tissue from the wall of the ventricle was extremely fatty, the transverse markings could be nowhere seen, and the fibrils broke with irregular, jagged ends.

Brain and lungs normal.

Kidneys. The left measured five and a half by three inches, and weighed eight ounces. The capsule easily detached, surface smooth beneath, with injection of the stellate veins. On section the kidney was lighter than normal, particularly the cortical substance. The entire pyramidal substance was increased to such extent that the pyramids could scarcely be seen in places. The right kidney measured five by two and a half inches, and weighed five ounces, and was similar to the left. The microscopic examination revealed an advanced stage of fatty degeneration.

Liver. The transverse diameter twelve inches; antero-posterior diameter of the right lobe ten inches and of left six and a half inches; color darker than normal, substance soft and of a dark chocolate.

Uterus and ovaries. Two cysts were found, one in each ovary.

We have here the history of a patient undoubtedly affected with syphilis, whose death was caused by the rupture of an aneurism of the heart. Forming part of the sac of the aneurism, a tumor was found, which I regard as a syphilitic, gummy tumor. This view is confirmed both by the microscopic, as well as macroscopic appearance, and further strengthened by the syphilitic history. The tumor I regard as the first formed, which by its partial softening so weakened the walls of the heart at that point as to give rise to the formation of the aneurismal dilatation. Three cases in which gummy products have occasioned the formation of cardiac aneurism, and which have presented a condition more or less similar to the one under consideration, I find recorded by Lebert, Virchow, and Oppolzer. The foregoing case naturally suggests three lines of investigation—rupture, aneurism, and tumors of the heart—to which I wish briefly to call attention. And first, in regard to rupture of the heart, or what has been termed spontaneous rupture, meaning thereby to exclude those cases in which the cardiac walls have been penetrated by wounds. Dr. Barth, physician to Hotel Dieu, in Paris, has contributed an article upon the subject of spontaneous rupture of the heart, in the *Archives Generales de Medicine*, for 1871, in which he analyzes twenty-four cases, the entire number of which are recorded in the *Transactions of the Anatomical Society*, of Paris, during forty years, a society before which the most interesting specimens are always presented. Of these cases seven were men and seventeen women. This discrepancy, however, is somewhat accounted for by the fact that most of the specimens were drawn from hospitals dedicated to the diseases of old age. The Salpetriére, which is used exclusively for women, is within the city, and easily accessible; while the Bicetre, in which men alone are received, is more distant, so that many more pathological specimens are shown from the former than the latter. With the exception of two, the rupture in every case occurred in persons over sixty years of age. In twelve cases in which the previous health was noticed, three were in good health; the rest had suffered more or less with cardiac symptoms, such as oppression, palpitation, vertigo, and occasional attacks of syncope. Among the immediate exciting causes, a full meal is noted in one, a cup of brandy and coffee in one, while five were attacked during the act of defecation. In the great majority of cases death was immediate; two, however, survived for some little time, one being unconscious for half an hour before death, and the other an hour and a half. In all the cases the cavity of the pericardium contained clotted blood, varying from six to fifteen ounces, and in one case the quantity was estimated as over two quarts. In twenty-two cases there was a single rupture, in one there were two external openings, communicating, however, by only one with the ventricle, while in the remaining case there was one internal, and three external openings. All of the ruptures occurred in the left ventricle; nine were in the middle, four near the base, and eight at or near the apex. In three the exact locality was not stated. In twenty cases the extent of the rupture was estimated at from one to three centimetres. In eight cases in which the fact was noted, four presented the largest aperture on the ventricular surface, three on the pericardial, and in one the two were equal. In some the line of rupture was direct, in some sinuous, and in one there was a cavity in the substance of the wall, which was filled with clotted blood. Of the condition of the walls of the heart, in one alone were they said to be healthy, and in his case the coronary arteries were ossified, and there was a constriction above the iliac bifurcation of the aorta. For the rest there was noted ecchymoses, interstitial hemorrhage, thinning of the walls, hypertrophy, and softening, variously described as friable, fragile, etc. Fatty degeneration was the most constant change noted, the fat covering the heart as a thick layer beneath the pericardium, or disintegrating the muscular fibres, as shown by the microscope. Pericardial adhesions were not seen in the whole series. In four cases the left ventricle was hypertrophied, and in two hypertrophied and dilated. There was one example of stenosis of the mitral valve, and four times ossification with stenosis, or insufficiency of the aortic valves. In some cases the aorta was noted as dilated, atheromatous or calcareous, and in one there was contraction above the bifurcation. From these cases M. Barth concludes that the most constant changes which accompany rupture of the heart are fatty degeneration and interstitial hemorrhage, but also includes, as more rarely observed, aneurism, ulceration of endocardium, abscess of the wall of ventricle, and hydatid cysts. Underlying all these changes,

he sees the nutrient arteries of the heart affected, giving rise to interstitial hemorrhage, atrophy, by lack of nutrition, and degeneration of the muscular tissue. That the rupture is sudden and complete in the great majority of cases, and that death follows instantly, cannot be doubted, but in some few there seems to be reason to believe that the lesion is not accomplished at once, or at least that the fatal termination is somewhat delayed. Thus changes have been observed in the border of the wound which time alone could effect. In one case, while the greater part of the blood found in the pericardial sac was soft and evidently but recently coagulated, there was a layer covering the heart more highly organized, and which, from the history of the case, had been probably the result of a hemorrhage occurring a day or two previous to the fatal rupture. This is likewise confirmed by the symptoms, for, in some cases the fatal attack has been ushered in by sudden and great dyspnœa, or excessive pain in the precordial region, while in two cases syncope lasted, in one, half an hour, and in the other an hour and a half before death. The immediate cause of death M. Barth regards as the interference with the action of the heart by the rapidly increasing pressure from the blood accumulating in the pericardial sac.

Bouillaud has suggested, and Rokitansky seems to consider the suggestion as at least plausible, that the cause of death really is the complete anæmia of the brain caused by the sudden emptying of the left ventricle. In addition to the twenty-four cases reported in the above article, I find recorded in the *Transactions of the Pathological Society of London* twenty-three cases which bear out the general conclusions of M. Barth, but which also present some striking exceptions.

Thus in nineteen cases the left ventricle was the seat of rupture. In two the septum and right ventricle; and in one the right ventricle alone, while the left ventricle was once affected; to this case I shall have occasion further to allude. In nineteen cases fatty degeneration of the muscular fibres was noted as present, in one interstitial hemorrhage in the wall of left ventricle, and in one atheroma of the endocardium. In all but one the patients were advanced in years. The single exception was a specimen presented by Ogle and recorded in Vol. 14 of the *Transactions*. This is the case spoken of above, in which the left auricle was affected, and so far as I have been able to find stands unique. It was from a girl twelve years old who was recovering from scarlet fever. In this case there were atheromatous patches in the endocardium. Barth alludes to a collection of fifty-five cases made by a Mr. Ellearmer, in which the rupture occurred, in forty-eight times, in the left ventricle, in three in the right auricle, in two in right ventricle, and in two in the left auricle. This paper I have been unable to find, and do not know what further deductions were made from the cases.

Combining these three series together we find that out of one hundred and two cases the rupture occurred ninety-one times in the left ventricle, three times in the left auricle, four times in the right ventricle, twice in the septum and wall of right ventricle together, and twice in the right auricle. These considerations justify the conclusions that with rare exceptions spontaneous rupture of the heart affects those of advanced age; that its seat is the left ventricle, and that fatty degeneration of the muscular tissue is the pathological change most constantly present and upon which the rupture depends. Aneurism of the heart is described by all systematic writers as cardiac pathology. Rokitansky, who quite fully discusses the subject, makes the division of acute and chronic. In the first there is always a destruction of the endocardium together with more or less of the underlying muscular tissue, so that the aneurismal sac is only composed of part of the coats which normally form the walls of the heart. This form he compares to false aneurism of the arteries, and it is always accompanied by more or less evidence of a previous endocarditis. The second or chronic form is found in those cases in which there has been no solution of continuity either of the endocardium, the muscular tissue, or pericardium. These cases are always due to myocarditis, or inflammation occurring in the muscular substance of the wall, and affecting the adjacent endocardium and pericardium. This inflammation gives rise to the production of a cicatricial tissue in place of the true muscular elements, and following the law observed elsewhere in regard to inflammatory tissue, this undergoes contraction, this contraction produces a depression in the wall of the heart, or a circumscribed dilatation of the ventricle at that point. This depression or dilatation enlarges more and more under the force of the blood stream, the cardiac wall grows constantly thinner, and finally is bulged out and presents the appearance of an appendage or tumor upon the pericardial surface. Here we have the sac formed of all the parts of the heart walls, changed, indeed, by the inflammatory action, but nowhere presenting any solution of continuity. These cases are analogous to the true aneurism of the arteries, in which there is dilatation of all of the coats. The dependence of this form upon a preceding myocarditis gains in probability from a consideration of the general course of inflammation in other muscles, and from the fact that the left ventricle, which is by far the most frequent seat of aneurism, is also almost exclusively affected by an interstitial inflammation. The size of the aneurism is from that of a pea, forming merely a depression in the wall, to that of an orange or fist. The ventricular opening may be as wide as the widest part of the sac, or contracted and small. It may contain coagula, and also layers of fibrin deposited as in arterial aneurism. The possibility of an abscess opening into the ventricle

giving rise to aneurism is discussed by Rokitansky, but in no case has he found these conditions to exist. Rupture is comparatively rare. The sac may become adherent to the pericardium, or even ulcerate through and become attached directly to the thoracic wall.

This description of Rokitansky agrees very nearly with the conclusions arrived at by Mr. Thurnam, who has published the result of his analysis of seventy-four cases of cardiac aneurism, in the *Medico-Chirurgical Review*, 1838. These were divided as follows:—In fifty-eight cases in which there were sixty-seven distinct aneurisms, the left ventricle was affected. In fifty-two of these cases there was a single aneurism, in four cases there were two, and in one there were four. The left auricle was affected eleven times, and the remaining five were cases of so called aneurism of the valves. Thurnam explains the reason that the left heart alone is affected, by the fact that the blood pressure is there much the greatest, and also that as the left heart is the centre of the arterial system, while the right is the centre of the venous, it is but just to conclude that the former would be affected by those causes predisposing to aneurism in the arteries, and this is really confirmed by observation. Out of the sixty-seven aneurisms observed in the left ventricle, and occurring in fifty-eight different subjects, there were thirty-five which occasioned a decided prominence on the pericardial surface. In nineteen there was no such prominence, while in the remaining thirteen the condition of the specimens when examined was such as to render it a matter of doubt. In nineteen cases the opening into the ventricle is described as wide, and in twenty-five contracted. The apex was the seat of the disease in twenty-seven cases; in twenty-one it was found near the base, while the lateral wall contained fifteen, and the septum three. Of those situated near the base four opened into both ventricle and aorta. In fifteen cases the sac was composed of muscular tissue and pericardium; of endocardium and pericardium in four; and in twenty-five all three entered into its composition. In nine cases the wall of the sac was found partly cartilagenous or somewhat ossified. In twenty-seven cases there were pericardial adhesions, though in twenty of these the adhesions extended only over the sac, which was always described as small. None of these ruptured into the pericardial sac. In one case the sac was adherent to the pericardium, and rupture having occurred, the contents of the aneurism were discharged into the pleura. In twelve cases the endocardium was diseased; in nine the muscular substance described as having undergone a fibro-cellular degeneration. Disease of the valves is described as present in twelve cases; eight were contraction of the mitral; three of the aorta, and one of both of these. In ten cases only no lesions are spoken of; out of forty subjects in which the sex is mentioned thirty were men and ten were women. In thirty-five cases the age is given: one under twenty-one; sixteen from twenty-one to fifty, and eighteen over fifty. Out of seventeen cases the profession was that of a soldier in eight. The exciting cause was variously described; an outburst of anger, a blow on the chest, a military flogging, and, in the case of the celebrated tragedian, Tulema, to the efforts made during a piece of passionate acting. The case of a nobleman is detailed, who, during an outburst of anger, felt a sudden sharp pain in the precordial region, followed by cardiac symptoms. His death occurred in ten days, and an aneurism was found near the apex of the left ventricle. In most of the cases cardiac symptoms were very vague or entirely absent. In those cases in which auscultation had been practiced the signs were those of valvular disease. Death occurred three times from syncope; eight times from rupture; four from apoplexy, and once from epistaxis. In the eleven cases in which the lesion was seen in the auricle the mitral opening was stenosed in all. Mr. Thurnam gathered these cases from specimens in the London museums, and as many were very old, it was impossible to find complete histories for many of them.

The case presented here to-night corresponds with the general deductions above given. The left ventricle is the seat of lesion, and the endocardium and muscular walls are both diseased. The accident of rupture is, however, spoken of as rare by both Rokitansky and Thurnam. The existence of a tumor at the side, and forming part of the aneurismal sac, is more unique, and I have found no similar case recorded by Thurnam, though similar cases are given by other authors, to which I shall presently allude. The length this paper has already reached precludes the possibility of discussing in a general way the different forms of tumors seen in the heart, so I shall only give that which is apropos to our present case. The tumor I regard as a syphilitic gummata, and am strengthened in this view by the fact of active syphilis being present. Lanceraux describes, among syphilitic lesions of the heart, a diffuse myocarditis and gummy tumors. Of the latter he has seen eight examples, two of which were in the wall of the left ventricle. I have found three cases in which aneurism has been caused by gummy tumors; one by Lebert, I have been unable to find the history of. In vol. 14 of the *Archives* Virchow describes a case in which, besides the tumor, there was a general myocarditis, with endocarditis and pericarditis, and in addition lesions of the liver referable to the same disease were also found. The remaining case is by Oppolzer, and is recorded in *Schmidt's Jahrbch*, 1860. Here the aneurism would only contain a bean, and had been developed by the softening of a gummy tumor, which breaking through the endocardium opened into the ventricle. The patient died of embolism of the brain. That syphilitic tumors should give rise to aneurism is readily explainable from the fact that they are prone to undergo softening in the form of a so-called caseous degeneration.

EDITORIAL DEPARTMENT.

PERISCOPE.

Effects of Muscular Exertion.

A fruitful discussion of this subject took place lately at the Medical Society of London. Dr. T. CLIFFORD ALLBUTT believed that the affections of the heart due to physical strain were by no means rare. They consisted in an obstinate "irritability" of the organ, and in dilatation of both chambers without hypertrophy; and these cases were often very difficult to cure. He referred to the case of a professed runner, who had suffered from irritability of the heart and dilatation especially of the right ventricle, and who was now much relieved after three years' treatment and rest. Cases of injury to the mitral valves are rare; the author had notes of two cases only. The mischief resulting from strain was found, as might be anticipated, rather in the aortic region. Here the injury might be sudden or chronic. If sudden, the aortic valves were forced, or the aorta was cracked by a single excessive effort. More commonly, however, the mischief was slowly established; the aorta, long stretched beyond its strength, became the seat of chronic inflammation or of so-called atheroma, and the valves likewise were slowly degenerated. In this condition, regurgitation might occur suddenly, or may supervene more gradually. Dr. Allbutt next considered the kind of physical strain which led most easily to these results. After some remarks upon the mechanism of these strains of the circulation, he went on to say that he was at first disposed to think that athletics were often to blame for their appearance. On examining his own materials and other existing evidence, however, he discovered that this agency, though no doubt effectual in some instances, was not so injurious as the heavier labors of the working classes. Strikers in foundries, bargemen, heavy porters, and others similarly employed, were often injured in this way. The author then inquired into the reason of this difference, and thought that the principal one lay in this, that the labor of an artisan was more continuous, and left less time for repair. It was also carried on in spite of fatigue, of diminished health, and imperfect feeding. It was probable, too, that work done *con amore* was less exhausting than the drearier kinds of toil. Dr. Allbutt concluded by stating two cases in which he had reason to believe that mitral contraction, with presystolic murmur and thrill, had been the result of blows upon the præcordial region.

Dr. Farquharson quite agreed with Dr. Clifford Allbutt that athletic exercises in moderation, and after due preparation, were seldom injurious. Bad consequences were only met with in persons naturally feeble, or temporarily debilitated, who undertook sudden and severe exertion without previous training. In the very few instances in which he had met with cardiac strain, while medical officer to Rugby School, the boys had usually been working hard, and had undergone excessive physical fatigue when worn out by mental labor. In conclusion, he would refer to a paper in the last report of the naval medical service, in which Assistant-Surgeon Nathan analyzed a large number of heart cases at Haslar Hospital. Out of 850 in which he was able to determine their cause, 65 were directly due to violent exertion; and he showed further, that cardiac disease was largely on the increase in the navy, in consequence partly of the increased size of the ordnance now in use. Dr. Ogle said that, at the time of the discussion which some years ago occurred on the effects of continued and violent muscular exercise upon the heart, especially in connection with the observations of the late Mr. Skey, he was much impressed with the idea that the evils consequent on rowing, gymnastics, cricket, and other athletics, had been greatly exaggerated by some, and much under-estimated by others. Whilst firmly believing in the advisability and necessity of encouraging athletics at our universities and public schools, he was of opinion that there existed evidence showing that in many cases health was injured and lives damaged and impaired, by undue exercise at the universities, etc.; though, of course, it would be as absurd as unscientific either to condemn or to support any system merely upon the strength of a limited number of examples.

Treatment of Whooping-cough.

Dr. BERRY, of Lancaster, in a letter addressed to the *Medical Times and Gazette*, observes that in regard to all or most of the remedies employed in the treatment of whooping-cough, the words of Dr. Bateman can be endorsed by practitioners who have had only a moderate experience of this disease. He says: "Perhaps there is no disease for which so many specifics and infallible nostrums are promulgated with confidence, or so few actual remedies known."

Dr. Berry does not pretend to introduce any new remedy for this distressing affection, but desires to speak of one which is simple, safe, and, he thinks, apparently valuable in the treatment of uncomplicated whooping-cough. He has found dilute nitric acid, in doses of from five to fifteen minims, according to age, with simple syrup, given every three or four hours, to alleviate the cough and spasm, and apparently cut short the disease. During a recent epidemic he

prescribed this frequently, and has every reason to be satisfied with it. Whether the result has been *propter hoc* or not, he is not prepared to answer, but the cures have certainly been *post hoc*, in the cases in which he employed it; neither does he offer any suggestion as to the *modus operandi* of the remedy, but he believes its action to be that of a tonic, sedative, and antiseptic. He thinks, however, its refrigerating properties should not be lost sight of.

In all the cases Dr. Berry has treated with dilute nitric acid, he has paid attention to the state of the digestive organs, and, in such cases as have required it, he has given an aperient combined with an alterative. There is one advantage in the use of a remedy like this for children: unlike hydrocyanic acid, it is safe, and no unpleasant results need be dreaded from its administration. At the same time it is inexpensive; a consideration in cases in which a large quantity of medicine is likely to be required.

The Condition of the Cervix Uteri in Coition.

We quoted in the REPORTER last year (vol. xxvii), the interesting observation of Dr. BECK, of St. Louis, on the behavior of the cervix and os uteri during the sexual orgasm. From an article in the *London Medical Record* we note that Vallisneri and Haller observed the occurrence of erection in the uterus of animals; and Günther declared that in horses the uterus during and after ejaculation exercised a sucking movement. Bischoff (*Entwickelungsgeschichte der Saugethiere und des Menschen*, p. 23), believed, from experiments made on dogs and rabbits, that in the human subject, at the moment of its highest excitation, the uterus was pressed downwards in the pelvis, the os opened, and took up the semen by a sucking movement. Still, on the whole, there was little inclination to accept the analogy from observations on animals; not even when Rouget (*Journal de la Physiologie*, vol. 1, p. 322, etc.), had published his researches on the dilatability of the vessels of the human uterus, when Litzmann (*Wagner's Handwortenb. der Phys.*, vol. 3, p. 53), and soon afterwards Hohl (*Lehrb. der Geburtsh*, p. 125), had observed the immediate erection of the uterus through touching, and when Eichstedt (*Zeugung, Geburtsmechanismus*, etc.), on this ground, and on his own experience, had perfected a complete theory of erection and aspiration.

A year since, in an essay on the erectile power of the lower section of the uterus (*Berliner Beitrag. z. Geburtsh. u. Gyn.*, vol. 1, p. 296), Dr. Wernich published two detailed observations on the erection of the uterus, and controverted Eichstedt's theory, showing its many physical difficulties. Supported especially by the anatomical examinations of Henle (*Handb. d. Syst. Anat. d. Menschen*), he sought to show that a somewhat different proceeding was probable.

He assumed first of all that, as in men erection of the penis, so in women a similar preparative state of the vaginal portion of the uterus (and indeed of this only) happened; that, at the moment of the greatest "orgastic" excitation, and almost simultaneously with the ejaculation on both sides, the cervix again became lax and soft, the os opened; and that, by this apparently sudden remission of the erect condition, rendered possible by the peculiar disposition of the vessels, aspiration took place. He cites the observations of Dr. Matthews Duncan (*Researches in Obstetrics*, p. 431), and also of Bischoff, as agreeing in the main with his view. The latter, however, does not regard the condition described as necessary to, but only as favorable for, impregnation.

It is quite natural that any one who makes daily many uterine examinations, should consider he has a fair amount of information of all the conditions of this organ. If, therefore, a gynæcologist have never observed an erection, he will naturally retain some suspicion as to this fact. A uterine examination is not merely different in degree from a stronger sexual excitement, but it is something absolutely different. We find, as John Hunter has described in his work on venereal diseases, very sensitive individuals, where unusually powerful physical restraining influences bear upon this question.

Louis Mayer, from his extensive experience, could not call to mind a case in point; in some instances he thought he had witnessed indications of a change of consistence in the cervix, but not a veritable erection. A complete observation, from the precautions taken by nature, and the decency observed on both sides, is generally prevented; it is only through a lucky chance, if one may so say, scarcely otherwise than by an accident, that this is possible.

REVIEWS AND BOOK NOTICES.

NOTES ON CURRENT MEDICAL LITERATURE.

——JAMES CAMPBELL, of Boston, announces "The Passions in their relations to Health and Diseases." Translated from the French of Dr. X. BOURGEOIS, Laureate of the Academy of Medicine of Paris, etc. By HOWARD F. DAMON, A.M., M.D.

——Of new English books, one of the most noticeable is Dr. GORDON'S lessons on "Hygiene and Surgery," from the Franco-Prussian War, which has already attained a high character in medico-military literature.

——Not less interesting is a two-volume book, entitled "Doctors and Patients, or Anecdotes of the Medical World and Curiosities of Medicine," by the indefatigable

Mr. John Timbs, well known for his curious researches.

——Of French contributions to medical science, of late date, we may mention :—

LEPRIEUR (Dr. Ch.).—Recherches sur la conservation temporaire des cadavres au point de vue des travaux de dissection et de médecine opératoire.

MEYER (Dr. E.).—Traité pratique des maladies des yeux. Avec 257 fig. intercalées dans le texte.

PICOT (Dr. Constant).—Du rhumatisme aigu et de ses diverses manifestations chez les enfants.

RAPHAEL Dr. Léon).—Traité pratique de la pustule maligne.

RIANT (Dr. A.).—Leçons d'hygiène, contenant les matières du programme officiel adopté par le ministère de l'instruction publique pour les lycées et les écoles normales.

FRÉMY (Dr. Henri).—Etude critique de la trophonévrose faciale (physiologie pathologique).

BYASSON (Dr. Henri).—Des matières amylacées et sucrées, leur rôle dans l'économie.

CUIGNET (Dr. F.).—Ophthalmie d'Algérie. (Lille.) 1re *et* 2e *partie.*

BOOK NOTICES.

The Credit Guide. Philadelphia, 1873. Vol. 2, No. 1, paper, pp. 144.

This is a pioneer work of its kind, having just entered upon its second year of publication. It contains one hundred and forty-four pages of carefully compiled matter, nicely printed on good paper, and presents a creditable appearance. Its purpose is to publish semi-annually the names of persons who employ physicians without rendering them any remuneration for their services, though able (and in many instances abundantly so) to do so, and thus to furnish the physician with such information for the transaction of his business as is furnished by Bradstreet and Dunn to the merchants of the country, and which is to them invaluable.

Under no circumstances is it intended to publish the name of any person in indigent circumstances, and who is consequently unable to pay the physician whom he desires to employ.

Many physicians do not as yet appreciate its full value to themselves and their brothers of the profession; a sufficient number have, however, given it their support and coöperation to insure its ultimate success, as the more than five thousand names in the present work will attest.

In this city, where there are so many large-hearted charities, and where it is estimated that one hundred thousand persons are treated gratuitously in its hospitals, its clinics and dispensaries, there is no danger of doing any person injustice in the establishment of such a list.

We should be glad to hear of its being in the hands of every physician in the city, and believe that a thorough coöperation of all physicians in this work would be of the greatest service in relieving them of the continual and systematic imposition, as practiced by the class whose names are found in the pages of the Credit Guide.

The Science and Art of Surgery. Being a Treatise on Surgical Injuries, Diseases and Operations. By JOHN ERIC ERICHSEN, etc. A new edition, enlarged and carefully revised by the author. Illustrated by upwards of 700 engravings on wood. 2 vols., 8vo, pp. 781, 918. H. C. Lea, Philadelphia, 1873.

ERICHSEN'S *Surgery* is so well known to the profession of the United States, the earlier editions of it stand, well-thumbed, on the shelves of so many offices in every part of the country, that any introduction of the work to our readers were a superfluous labor. Perhaps it is enough to say that this edition appears with numerous additions by the author, swelling the original into two thick volumes; much obsolete matter has been cancelled; many new woodcuts inserted; the specialties of surgery fully represented; and the latest conquests of the science closely followed up.

This time no American editor attaches his name to the volumes, and we miss the references to especially American surgery which are found in older editions. The very late revisal by the author himself, or the preferences of the publisher, may be the cause. At any rate, American surgery receives respectful mention from time to time, and the long experience of Mr. ERICHSEN as author and operator has left few lacunæ to be filled. The paper is clean and good, and the illustrations well printed.

MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, MAY 3, 1873.

S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

☞ Medical Societies and Clinical Reports, Notes and Observations, Foreign and Domestic Correspondence, News, etc., etc., of general medical interest, are respectfully solicited.

Articles of special importance, such especially as require original experimental research, analysis, or observation, will be liberally paid for.

☞ To insure publication, articles must be *practical, brief* as possible to do justice to the subject, and *carefully prepared*, so as to require little revision.

☞ Subscribers are requested to forward to us copies of newspapers containing reports of Medical Society meetings, or other items of special medical interest.

We particularly value the practical experience of country practitioners, many of whom possess a fund of information that rightfully belongs to the profession.

The Proprietor and Editors disclaim all responsibility for statements made over the names of correspondents.

THE THEORY OF A SOUL.

There is no use of any one blinding himself to the fact that the theory of the evolution of organic nature from lower to higher forms is daily becoming more and more substantiated by investigation. It may be that the particular form of that theory so forcibly advocated by Darwin is not the true one; it is highly likely it is but the partial truth; but one or other system of evolution, or all together, acting severally or jointly under varying circumstances, have no doubt brought about the diversity of organized life. Unbridged chasms there are still in abundance, but on either side of them the path is plain, and each day's discoveries in palæontology supply some missing link in the chain which binds all organic forms to one or a few eternal types.

Why is it that this simple and beautiful explanation of Nature's workings has met such determined opposition? It is because it seems to degrade man to the level of the beast, to deny him the noble distinction of an immortal destiny, to quench that burning hope within him that when worms destroy this body he shall still see God. This, more than anything else, is what has militated against the reception of the theory of evolution.

The study of the mental phenomena of animals reveals in them obvious traces of every intellectual quality man possesses. In him, some are more prominent, others less; but he has not one peculiar to himself, without it be the religious instinct, and even this is doubtful. Memory, will, imagination, intelligence, conscience, all these we know are parts of the animal mind. The more closely the habits of the lower creatures are studied, the more readily do we renounce the ancient belief in an unintelligent instinct as guiding them, and recognize the actions of an intelligent mind.

That the theory of evolution can be harmoniously combined with any belief in a soul, in the ordinary acceptation of the term, is generally doubted. It means, to most, blank materialism. In one of the recent Croonian Lectures, in London, delivered at the Royal College of Physicians by Dr. C. B. RADCLIFFE, the speaker summed up in a most able manner the arguments in favor of the existence of a conscious soul outside of mere vital forces. But he recognized no possibility of harmonizing this belief with the doctrine of organic evolution. On the contrary he says:—

"Is not the view arising out of the doctrine of evolution altogether at variance with that which I have been led to take in this lecture? Unquestionably so. It is simply impossible to reconcile the two views; and it is also certain that if that which arises out of the doctrine of evolution be right, the other must be abandoned. What, then, are the facts upon which this doctrine of evolution is based? This is the question. Are they to be read only in favor of this doctrine, or is there another reading? I venture to think that there is another reading."

This reading is that the changes so abundantly cited by naturalists are confined within the limits of species. But this assertion was made years ago, and the evidence against it is accumulating every day.

What, then, is the alternative? Are we,

in case this doctrine is forced upon us by evidence quite sufficient to convince every unbiased intellect, to renounce the belief in a life hereafter? The world were wondrous out of joint, and truth-seeking has led us to a gloomy consummation, if this be so.

But what if it can be shown by conclusive evidence that this view of the identity of the soul of man and brute is in reality that taught by the ultimate canon of Christendom, the Bible? What if it be proved that this canon positively denies immortality as an attribute of the soul, and distinctly and repeatedly affirms that it is both mortal and material? And all this, too, without abating one jot or tittle of those rewards promised to the righteous? Such an argument ought to be worth reading.

It lies now before us, and we have read it with increasing interest. It is not the product of any theological mill, ground out to be fed as an antidote to what is supposed to be scientific poison. Neither the doctrine of evolution nor Darwinism is once mentioned. This application is our own. The author is a medical man of acknowledged eminence, and a Bible student who might serve as a model for many a clergyman. He is Dr. CHARLES L. IVES, Professor of the Theory and Practice of Medicine in Yale College. His duodecimo of 119 pages contains the matter of a hundred sermons. His theses are:—

1. The Bible declares that animals have souls.
2. Man in like manner has a soul, which likewise dies.
3. The souls of men and beasts differ in the possibilities of a future.
4. Immortality is an attribute of God and a gift to his redeemed.
5. It is not bestowed on the finally impenitent.

These theses are maintained by a cogent array of texts, the result of an earnest, thorough, humble study of the Bible as the source of all our possible knowledge of the questions proposed. We estimate their importance very highly, especially in connection with the theories touched upon in the earlier part of this article.

The recognition of the fact that the Old Testament denies the immortality of the soul is, of course, not new. Bishop Warburton, in the last century, in his celebrated work, *The Divine Legation of Moses*, used it with great effect in his argument for the divine leadership of the Israelites. That the uniform testimony of both Old and New Testament is to the same effect, Dr. IVES is the first, to our knowledge, to demonstrate. Only thus, he maintains, can Scripture be understood; only thus, we add, can Scripture and Science be harmonized.

The book is published by Judd & White, New Haven, Conn. We heartily recommend it to all earnest Bible students, and especially to those whose minds are perplexed by the importunate demands of natural science for some more lucid theology than that crystallized in the dogmas of the various Christian confessions.

NOTES AND COMMENTS.

Pure Native Wines.

In the selection of wines for medicinal purposes, too close attention cannot be given to their purity and freedom from admixture of brandy or other distilled spirits. Even high-class foreign wines are very often "fortified" or brandied, in order to prevent changes on the sea voyage. All Burgundy wines are thus treated for exportation. Hence it is the duty of the physician to give the preference to a pure domestic article when he knows of one.

We can confidently recommend to all the wines of the *Pleasant Valley Wine Company*, of Hammondsport, New York, as entirely pure, carefully made from native grapes, and in every way better adapted to medicinal purposes than any of the foreign brands usually prescribed. The taste for alcoholic stimulants is far more likely to be left after the use of mixed or brandied wines, than after the pure article, a consideration which every physician should bear in mind. These wines are sold at reasonable rates, and when ordered direct, as they readily can be, there is an assured certainty of having what is

wanted. They are of several varieties, sweet and dry, still and sparkling, adapted to various demands. The Company's advertisement in the present number merits a careful reading by all our subscribers.

Rapidity of Magnetic Motion.

At the Victoria Institute the following interesting statement was made by Mr. HOWARD, as showing the swiftness with which the thrill of magnetic influence is communicated. On the 1st September, 1859, Messrs. Carrington and Hodgson were observing the sun, one at Oxford and the other in London. Their scrutiny was directed to certain large spots which at that time marked the sun's face. Suddenly a bright light was seen by each observer to break out on the sun's surface and travel slowly in appearance, but in reality at the rate of about 7000 miles in a minute, across a part of the solar disc. Now, it was found afterwards that the self-registering magnetic instruments at Kew had made at that very instant a strongly-marked jerk. It was learned at that moment a magnetic storm prevailed at the West Indies, in South America, and in Australia. The signal-men in the telegraph stations at Washington to Philadelphia received strong electric shocks. The pen of Bain's telegraph was followed by a flame of fire, and in Norway the telegraph machinery was set on fire. At night great auroras were seen in both hemispheres.

French Medical Journalism.

A correspondent of the *British Medical Journal* refers in the following language to the amenities of our brethren of the French medical press:—

It is very agreeable to be an inspector of mineral waters, with nothing to do, a pretty salary, crosses and medals in proportion, an official position, and a prior right to the cream of the visitors. So the friends of the present inspectors, the expectant inspectors, and their friends and their cousins, will make a good fight. The journals enjoy it immensely; it affords them all subjects for endless leaders, and opportunities for insinuating the most unpleasant motives in the most polished language. Paradise of journalists! Of course they don't mean it, and know each other to be honorable gentlemen; but, when the pen is in the hand, the ink will flow; and the color is—rarely white.

Dental Accidents During Anæsthesia.

At the last meeting of the Pathological Society of Great Britain, Mr. F. Henry said he would like to make a few observations in respect to an incident which occurred a few days since in his operating room, and which suggested a probable cause for the unfortunate casualty at Exeter. A lady, desirous of having a lower molar tooth, very much decayed, removed under nitrous oxide, was placed under the influence of that agent. It was administered to her twice, and upon recovering after the second administration she exclaimed that she could not swallow and was choking. From these sensations she was relieved after one or two attempts at swallowing. Upon examining the tooth, it was found that two sides of the crown were missing. They were searched for, but could not be found. They had doubtless lodged somewhere in the throat, probably under the glottis. Viewing this case in connection with that at Exeter, he thought it most probable that in the latter the missing fragment of the prop lodged under the glottis and finally in the larynx.

Proprietary Medicines.

The Berlin *Industrie Blatter* gives the following as the composition of Sage's "Catarrh Remedy":—

7 grains carbolic acid, 7 grains camphor, and 2·57 drachms common salt. The whole is colored with a little Prussian blue, and sold at 50 cents per bottle, which affords a nice little profit above the expense of labels, advertising, etc. The same number of this journal exposes an eye balsam sold by a widow Müller in Berlin, which is warranted to cure every form of eye disease. It consists simply of 3 grains oxide of mercury (red precipitate) and 2.5 drachms strong, unsalted butter. This old and well known salve is sold in boxes holding about 3 cents' worth for the modest sum of 15 cents. From this statement it will be seen that the German quacks are satisfied with smaller profits than our people; for it is not long since a Philadelphia firm had the audacity to put up less than a cent's worth of carbolic soap and sell it for 25 cents, as a sure protection against small-pox.

The composition of the article called Dr. Pierce's alterative extract, or "Golden Medical Discovery," is given as follows: 4 drachms purified honey, 15 grains extract of poison-

ous lettuce, 30 grains tincture of opium, 3.5 ounces dilute spirits tasting like fusil oil and wood spirits, and about 3.5 ounces of water. Ten cents' worth of this trash sells for $1.

We find the above in the *Scientific American*. Cannot some of our correspondents furnish us with reliable analyses of some of the nostrums of the day?

Soothing Syrup.

The nostrum sold as Winslow's Soothing Syrup is generally supposed to contain morphia. The editor of the *Chemist and Druggist*, however, says, "Our experiments have led us to believe that this syrup contains no morphia, and that it depends for whatever 'soothing' properties it may possess on the oil of anise suspended in it. Neligan describes this oil as 'a carminative employed in flatulent colic, and in the diarrhœa of infants and children.' The administration of this Syrup must sometimes offer a special opportunity for thoroughly testing the therapeutical properties of the oil, for we have observed that bottles which have been in an upright position for some time have nearly all the contained oil (some eight or ten drops) floating on the surface. Four drops would be a fair dose for an adult.

"We decline to say that Winslow's Syrup contains no morphia or opiate at all. The proprietors may, perhaps, mix a homœopathic dose, with the idea that a trace of it may do some good and can do no harm. But we can assert that if the syrup contained one part of morphia in 3000 (.3 grains to the bottle), we should have had in one of our experiments a very decided precipitate, instead of which there was not the slightest trace of cloudiness."

In contradiction to the above extract from a "trade" journal, Dr. EDWIN M. SNOW, Registrar of Providence, reports, in a late official return, the death of a child from this mixture. His words are:—

"The decedent from poisoning in March was a child killed by a dose of Mrs. Winslow's Soothing Syrup. It has long been well known to physicians that the soothing properties of this popular medicine are due to opium in some form, and that the quantity of opium is so large as to make it a decidedly dangerous nostrum. There is no doubt that a considerable number of deaths every year should be recorded, 'Poisoned by Mrs. Winslow's Soothing Syrup.'"

Medicated Bougies.

M. BONNAFONT recommends the use of bougies, coated at the extremity with a solution of silicate of potash, with opium extract and caustic potash added in certain proportions. A smooth coating is formed, which incorporates itself with the bougie; this is then passed into the urethra or into the eustachian tube, in cases of narrowing of these canals. A little rotatory motion may be communicated to the instrument to hasten the dissolution of the silicate.

CORRESPONDENCE.

The Bromides in Epilepsy.

EDS. MED. AND SURG. REPORTER:—

Seeing in your last issue Dr. C. H. Richards' report of a case of epilepsy, I thought the following might be interesting to your numerous readers, as showing the good effect of bromides of potassium and ammonium in epilepsy:—

Mrs. C., about nineteen years ago, gave birth to a son, having been previously in good health. The nurse, on the following day, bathed her in *cold water* "*from head to foot.*" She immediately after went into a spasm, and had them regularly for the first few years, once in two or three weeks. She was then taken to a prominent member of the profession in New York city, where she was treated for a year, but derived no benefit. She came home again, and was treated during sixteen years by various members of the profession, the spasms increasing as the years advanced, and her mind fast leaving her. I was called to see her on the evening of March 18th, 1873, and was told she had had seventeen spasms during the day. I inquired about the case (she being in a spasm when I entered the room), and obtained the above facts from her husband, he being an intelligent person. Strange to say, not one of all the many physicians that had seen and prescribed for her had ever given her bromide of potassium or bromide of ammonium. Immediately on her returning to consciousness I gave her the two medicines combined, and the effect produced was satisfactory, she going to sleep shortly after. When she awoke there was slight twitching of the facial muscles, and the dose was repeated, which soon put the twitching to flight, and she became calm. Called again next day, and found symptoms of brain inflammation; she continued pretty much in the same condition, without having spasms, for four or five days (the greatest relief she had had for ten months), when she went into a comatose state and died.

I write the above to add my testimony in favor of the bromides in *preventing* the epileptic spasms.

R. H. NEEFUS, Jr., M. D.

Dalton, Mass., April 15, 1873.

Oat Straw as an Irritant to the Skin.

EDS. MED. AND SURG. REPORTER:—

It is not my intention to present anything novel, but only relate simple truths which have been taught me by observation and experience. If any other professional brother has had similar practice in crowded Institutions, we would be pleased if he would let the world know of his investigations and results. I am confident that my views will be sustained, that oat straw produces eczema and porrigo.

No oat straw can be obtained in the market that is not either soured or mildewed, which is easily detected by the fermented odor. This has a poisoning or irritating effect upon the skin. Farmers know from their experience with cattle, that if pigs sleep in oat straw they contract a disease called scurf, which is the same as eczema. Any one who is connected with an Institution crowded with children, similar to the one in which I am laboring, may have observed that when the mattresses were filled with oat straw, and the beds were in the process of making up in the morning, the bedrooms were clouded with dust like the dust produced by thrashing mildewed grain. At this time the odor is very apparent. All oat straw has a villa or thorn on the stem, which can be observed by a microscope. Mildew is also a villaform excrescence on the stem, and has the appearance of the rust of iron, which breaks off and floats in the air. Doubtless this rust on the straw produces porrigo, which extends almost over the body in some cases, especially in Institutions where there are a great many children, and where they sleep closely. In our Institution we permit no oat straw to be used, and among the three hundred children there is not a single case of porrigo or eczema.

A. HARSHBERGER, M.D.

Soldiers' Orphans' Institute, Philadelphia, April 21st, 1873.

NEWS AND MISCELLANY.

Prof. "Monro, Tertius."

A writer in *All the Year Round*, quoted in *Every Saturday*, says:—

Professor Monro was, I need hardly tell any one acquainted in the slightest with the history of Scottish science, the professor of anatomy in the university, and the third of that name who had filled the chair for one hundred and twenty years. They are well remembered as the Monros, Primus, Secundus, and Tertius, and bear the relationship to each other of grandfather, father, and son. The first of the name was the founder of the Edinburgh School of Medicine, and one of the most distinguished men of his day. The second was also an able and eminent man; while the third, the one to whom we will more particularly refer, was, well, not a very distinguished man in any way. Nevertheless, in due course, as if by right of birth, he succeeded his father in the very lucrative post of professor of anatomy in the then famous medical faculty of the University of Edinburgh. I say by right of birth; for if it was not by that right, he had no other claim to fill the chair. He was not naturally a man deficient in ability, but was so insufferably careless that soon he really forgot the elements of the subject he had to teach. The students were not long in learning this too, and accordingly sought their anatomical instruction elsewhere. Doctor Knox and others were what are called extra-academical lecturers. Their lectures qualified for all examining boards except the University of Edinburgh, which did not recognize them, and accordingly the students were compelled to attend the university professors for their certificate, while they went to Knox and others to get their knowledge. Nowadays these extra-academical lecturers are recognized by the university, are under the same laws as the university professors, and, with some restrictions, their lectures qualify for degrees in medicine. They, however, lecture at the same hour as the university professors. Knox, however, lectured at a different hour from Monro, namely, exactly five minutes after the conclusion of the professor's lecture. Accordingly, the students trooped over from Monro to Knox, greatly to the annoyance, but in no way to the loss of the former. It may be well supposed that during their enforced attendance on Monro's lectures, they did not spend much time in listening to what he had to say. In fact, they used to amuse themselves during the hour of his lecture, and always used to organize some great field days during the session. So lazy was Monro that he was in the habit of using his grandfather's lectures, written more than one hundred years before. They were, as was the fashion then, written in Latin, but his grandson gave a free translation as he proceeded, without, however, taking the trouble to alter the dates. Accordingly, in 1820 or 1830, students used to be electrified to hear him slowly drawling out, "When I was in Padua in 1694." This was the signal for the fun to begin. On the occasion when this famous speech was known to be due the room was always full, and no sooner was it uttered than there descended showers of peas on the head of the devoted professor, who, to the end of his life, could never understand what it was all about.

Another jubilee was when he was describing the structure of the calf of the leg. Here are two muscles, called the semimembranosus and semitendinosus, lying one over the other, but which was which, the learned professor, for the life of him, could never remember. Regularly every year, as the time came, his assistant "ground him up" on the subject. Chalk marks and private notches were put upon them, but all in vain. As he came to the ticklish point all fled out of his head, and while the theatre was silent to await the coming fun, he would cast anxious glances at the demonstrator, but to no effect. Then, in desperation, he would

push his porcupine quill beneath them, and blandly remark, "Gentlemen, these are the semimembranosus and semitendinosus muscles!" Then followed gallons of peas, and the lecture was at an end for that day.

Sometimes Monro would request a student to take notes. Next day the student would be seen sitting most gravely in the front bench, under the nose of the professor, with a ledger for his note-book, a blacking bottle for an inkstand, and seven or eight quill pens, one stuck on the end of another, until they reached to about a yard in length. No wonder that Monro Tertius' lectures are now recalled by grey-haired old physicians as the most amusing part of their whole medical studies in Edinburgh. Finally, the university induced him to resign on favorable terms (to himself), and ever since the chair has been filled by men of eminence commensurate with its importance. He is now long ago dead, but occasionally curious students of biography will disinter from the now rare "University Magna" some most amusing verses descriptive of his peculiarities, by a student who in after days became very famous, Edwin Forbes, late professor of natural history in the university.

International Medical Congress in Vienna.

The third international medical congress will be held in Vienna during the week from September 24th to October 1st, under the patronage of the Archduke Rainer. The following are the subjects proposed by the Executive Committee for discussion:—1. Vaccination; 2. Quarantine in its Relation to Cholera; 3. Prostitution; 4. The Sanitation of Towns; 5. Proposals for an International Pharmacopœia; 6. Proposals for making Medical Education as uniform as possible in all countries, and for establishing reciprocal right of practice. The German language will be used in introducing the subjects; but the subsequent discussions may be in French, English, or Italian, as well as in German.

Uniform Temperature.

An invalid now at Santa Cruz, West Indies, furnishes to the *Boston Medical and Surgical Journal* a record of temperature for December, 1872. Observations were made four times in each day. The highest reading of the thermometer at 8 A.M., was 80½°, the lowest, 77°; highest at noon, 84°, lowest, 80°; highest at 2 P. M., 83½° lowest, 80°; highest at 7 P.M., 81°, lowest, 70°.

Vienna Exhibition.

The celebrated anatomist, Professor Hyrtl, will exhibit a series of his preparations in the International Exhibition at Vienna. Of two series which he exhibited at the London Exhibition in 1862, and the Paris Exhibition in 1867, one was bought by an American university.

Homœopathy in England.

The *Homœopathic Review* gives the following meagre showing of the actual progress of Homœopathy in England:—

"Of the towns in England above 10,000 and below 20,000 population at the last census, 45 possessed no qualified representative of homœopathy at all, and twelve other towns had only one each; of the towns between 20,000 and 50,000 population, no less than 38 had no resident homœopathist; 14 of them had only one each, and five others only two each; of the towns between 50,000 and 100,000 population, 9 had no homœopathic physician, 7 had only one each, and 6 others had only two each; while there were and are actually 4 towns above the 100,000 limit in which no homœopathist has settled."

Longevity.

Don José Santiago Roque, a native of the Canaries, died lately in the island of Cuba, at the age of 113.

—The next annual meeting of the Medical Society of New Jersey will be held in the Court House at Mount Holly, Tuesday and Wednesday, May 27th and 28th, 1873. Commencing at 7½ o'clock, P. M., on Tuesday. WM. PIERSON, JR., Secretary.

Orange, April 29th, 1873.

MARRIAGES.

BANES—DAVIS.—April 21st, by Rev. Dr. Carter, V. G., A. V. Banes, M. D., of St. Joseph, Mo., and Bessie D. Davis, of this city.

BARLOW—WINANS.—By Rev. C. C. Winans, April 23d, at the residence of the bride's parents, Dr. Fred. C. Barlow, of Jersey City, and Fannie M. Winans, of Newark, N. J.

CLARK—VAN BERGEN.—At Grace Church, Brooklyn Heights, April 17th, by Rev. Dr. Paddock, Dr. Frederick E. Clark, of Staten Island, and Miss Kate W., daughter of John P. Van Bergen, of Brooklyn.

GRAY—FINN.—In New York, April 15th, by Rev. Dr. McGlinn, of St. Stephen's Church, Dr. Landon Carter Gray, of New York, and Miss Maggie E., daughter of the late Stephen Finn, of Petersburg, Va.

JONES—ADOLPH.—In this city, April 20th, by the Rev. T. A. Fernley, at Parsonage, Frankford, Twenty-third Ward, Dr. James Jones and Mrs. Angeline Adolph, all of this city.

SHOUT—CONLEY.—In Santa Fé, New Mexico, April 3d, by Rev. D. F. McFarland, Dr. J. H. Shout, of Las Vegas, N. M., and Miss Maggie Conley, of Santa Fé.

DEATHS.

BALL.—In Terre Haute, Ind., March 29th, Dr. Edward Voorheis Ball, aged 73 years.

GUERNSEY.—In New York, April 20th, Melissa P., wife of Dr. Peter Guernsey.

HOTCHKIN.—At Saxton, Pa., April 2d, Arthur Beriah, son of Dr. G. B. and Mrs. S. J. Hotchkin, aged 7 months.

LANDON.—In Brooklyn, April 20th, of congestion of the lungs, Dillon Stevens Landon, M. D., in the 51st year of his age.